

Notice of Allowability

Application No.

10/018,669

Examiner

Justin R Fischer

Applicant(s)

NGUYEN ET AL.

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12 May 2004.
2. ☒ The allowed claim(s) is/are 13-26 and 28-33 (renumbered 1-20).
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 20040720.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 20040720.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Drawings

1. The drawings filed on December 12, 2001 and November 5, 2003 are acceptable subject to correction of the following: new formal drawing of Figure 1 in light of the drawing correction submitted on November 5, 2003. In order to avoid abandonment of this application, correction is required in reply to the Office action. The correction will not be held in abeyance.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee. It is noted that the examiner's amendment is set forth only to correct issues regarding the status identifiers submitted in the After Final amendment on May 12, 2004.

Claims 1-33 are cancelled and re-written as follows:

1-12 (Cancelled)

13. (currently amended) A pneumatic radial ply runflat tire having a carcass comprising:

an inner liner,

an inner carcass ply reinforced with substantially radially aligned metal wires and disposed axially outward of the inner liner,

an outer carcass ply disposed axially outward of the inner carcass ply, and

a wedge insert disposed circumferentially in a sidewall region of the tire between the inner carcass ply and the outer carcass ply, and

a first fabric layer comprising cords and disposed circumferentially in the sidewall region of the tire between the inner liner and the inner carcass ply, and

a second fabric layer comprising cords and disposed circumferentially in the sidewall region of the tire between the inner carcass ply and the wedge insert,

wherein the inner carcass ply is sandwiched between the first and second fabric layers.

14. (previously presented) Tire, according to claim 13, wherein:

the cords of the first fabric layer are parallel-aligned.

15. (currently amended) Tire, according to claim 13, wherein:

the cords of the first fabric layer have both radially inwardmost and radially outwardmost portions disposed within the sidewall region.

16. (previously presented) Tire, according to claim 13, wherein:

the cords of the first fabric layer are oriented at angles of between 20 and 50 degrees with respect to a circumferential direction of the tire.

17. (currently amended) Tire, according to claim 13, wherein:

the cords of the first fabric layer are oriented at angles of between 30 and 45 degrees with respect to a circumferential direction of the tire.

18. (previously presented) Tire, according to claim 13, wherein:

the cords of the first fabric layer have diameters of between 0.2 millimeters (mm) and 1.5 mm.

19. (previously presented) Tire, according to claim 13, wherein:
the cords of the first fabric layer have diameters of between 0.3 millimeters (mm) and 1.0 mm.
20. (previously presented) Tire, according to claim 13, wherein:
the cords of the first fabric layer have a cord density of 15 to 50 ends per inch (epi).
21. (previously presented) Tire, according to claim 13, wherein:
the cords of the first fabric layer have a cord density of 20 to 35 ends per inch (epi).
22. (previously presented) Tire, according to claim 13, wherein:
the first fabric layer comprises a material selected from the group consisting of nylon, polyester, aramid and rayon.
23. (previously presented) Tire, according to claim 13, wherein:
the wedge insert has a radial reach within the sidewall of the tire, and
the first fabric layer has a radial width of between 20 percent and 80 percent of the reach of the wedge insert.
24. (previously presented) Tire, according to claim 13, wherein:
the wedge insert has a radial reach within the sidewall of the tire, and
the first fabric layer has a radial width of between 40 percent and 60 percent of the reach of the sidewall insert.
25. (previously presented) Tire, according to claim 13, wherein:

the first fabric layer is centered substantially across a radially central area of the wedge insert.

26. (previously presented) Tire, according to claim 13, wherein:

the first fabric layer is in direct contact with the inner carcass ply.

27. (cancelled)

28. (currently amended) Tire, according to claim 13, wherein:

the cords of the first fabric layer are parallel-aligned,

the cords of the second fabric layer are parallel-aligned, and

the respective parallel-aligned cords of the first and second fabric layers are oriented at opposite angles of between 20 degrees and 50 degrees with respect to a circumferential direction of the tire.

29. (currently amended) Tire, according to claim 13, wherein:

the cords of the first fabric layer are oriented at angles between 20 and 50 degrees with respect to a circumferential direction of the tire, and

the cords of the second fabric layer are oriented at angles between 20 and 50 degrees with respect to a circumferential direction of the tire.

30. (currently amended) Tire, according to claim 29, wherein:

the cords of the first fabric layer have diameters of between 0.2 millimeters (mm) and 1.5 mm, and

the cords of the second fabric layer have diameters of between 0.2 millimeters (mm) and 1.5 mm.

31. (currently amended) Tire, according to claim 13, wherein:

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the cords of the first fabric layer have a cord density of 15 to 50 ends per inch (epi), and

the cords of the second fabric layer have a cord density of 15 to 50 ends per inch (epi).

32. (currently amended) Tire, according to claim 13, wherein:

the wedge insert has a radial reach within the sidewall of the tire, and

the first fabric layer has a radial width of between 20 percent and 80 percent of the reach of the wedge insert, and

the second fabric layer has a radial width of between 20 percent and 80 percent of the reach of the wedge insert.

33. (new) Tire, according to claim 13, wherein:

the cords of the second fabric layer are oriented at angles of between 30 and 45 degrees with respect to a circumferential direction of the tire.

Allowable Subject Matter

3. Claims 13-26 and 28-33 (renumbered 1-20) are allowed. The following is an examiner's statement of reasons for allowance: The manufacture of "pneumatic, runflat tires" is extremely well known, wherein at least one runflat insert is disposed in each of the respective sidewall regions. Additionally, it is known to include a wide variety of reinforcement assemblies in such runflat tires- this has the effect of providing enhanced runflat characteristics. For example, Zhang (WO 98/54012) and Hoshino (US 3,954,131) recognize that one or more reinforcing layers can be disposed within the

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respective runflat inserts (Column 7, Lines 44-47), while Yamaguchi (JP 05-310013) and Nishikawa (US 6,209,604) suggest the inclusion of a reinforcing layer within the sidewall region (not disposed within insert). Regarding these references, the closest prior art is Zhang, which as best depicted in Figures 4 and 5, teaches a tire construction in which a first fabric layer is disposed between the inner liner and the inner carcass ply and a second fabric layer is disposed within the runflat insert and outward of the inner carcass ply. In this instance, though, the second fabric layer is not disposed "between" the inner carcass ply and the wedge insert but rather it is part of the wedge insert. One of ordinary skill in the art at the time of the invention would not have found it obvious to arrange the second fabric layer of Zhang "between" the respective components because such an arrangement is not consistent with the teachings of Zhang. In particular, the fabric layers are specifically designed to provide additional reinforcement within the runflat insert- the reference does not contemplate the inclusion of such a reinforcement assembly outside of the respective inserts. As such, the unique runflat characteristics obtained by sandwiching an inner carcass layer between a first and second fabric layer is not suggested, disclosed, or taught by the prior art references of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion


4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Justin R Fischer** whose telephone number is **(571) 272-1215**. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Justin Fischer

July 20, 2004


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